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A PARTIAL BIBLIOGRAPHY ON SOME CRABS OF COMMERCIAL IMPORTANCE

Prepared by

Melvin A. Benarde
Seafood Processing Laboratory
University of Maryland, Crisfield

FISHERIES DIVISION, BIOLOGY BRANCH
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, December 1961

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PURPOSE OF THIS SERIES

This is one of a group of Technical Papers (see inside front cover) in which are listed and classified references to documents dealing with the title subject. Each list is compiled from the Current Bibliography for Aquatic Sciences and Fisheries and other sources available to Biology Branch. Extra copies can be obtained by application to:

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PREPARATION OF THIS PAPER

The text of this paper was first published under the title "Technology of Crabmeat Production - A Bibliography" in Journal of Milk and Food Technology 24(7), 1961, thus not having come readily to the attention of fisheries scientists. Notwithstanding the technological emphasis in the original title, this bibliography contains selected references on the fisheries for, and biology of, commercial species of Callinectes, Cancer, Paralithoides, Erimacrus and Chionaecetes, but not on others such as Scylla serrata and Telmessus cheirogonus in the Indo-Pacific for which there is little technological literature. It is here reprinted, with the addition of a distribution chart prepared by the author.

Distribution

Author

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"Current Bibliography" Entry:

Benarde, M.A. (1961) 61-13502 M
J.Milk Fd Technol., 24(7):211-7
Technology of crabmeat production - A bibliography

List of references, with introductory notes on Callinectes sapidus, Cancer magister, C. pagurus, Paralithoides camtschatica, Erimacrus eisenbeckii and Chionaecetes opilio. Arranged by spp., and within spp. by subject and then alphabetically by author. Incl. references not only on processing technology, but also on biology, fishing methods and gears, economics and fisheries for these spp. Issued also as: FAO Fish.Biol.tech.Pap., (17):5 p., with addition of a world distribution chart.

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A PARTIAL BIBLIOGRAPHY ON SOME CRABS OF COMMERCIAL IMPORTANCE

Prepared by

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A bibliography dealing with food and food technology aspects of the body and leg muscles of crabs, has been unavailable. Such a compilation would be valuable to give logical direction to research and point-up individual problems that require study. The collection contained herein, was prepared to serve these needs.

In attempting to gather the pertinent literature, ministries, laboratories and libraries around the world were solicited. These inquiries elicited a gratifying response, producing several previously unknown publications and at the same time, indicating the striking paucity of literature in this area. It was firmly established that only six species of five genera are fished on a commercially profitable scale. Interestingly enough, published papers deal only with these same six forms.

While the stone crab, *Menippe mercenaria,* is fished in the south Atlantic coastal areas of the United States, it is of little commercial value; material dealing with its development technologically, have not been published. A similar situation exists with respect to *Portunus pelagicus,* of Austrialian waters.

It appears that some of the crab resources of South America particularly *Callinectes,* are not utilized and that additional fishing grounds may be discovered by exploring the inshore waters. Although the rock crab, *Cancer irroratus,* seems to be present along the eastern coast of the United States in numbers to justify a fishery, little study has been made of methods of meat removal; a problem that can easily mean the difference between profit and loss to a producer.

While *Portunus pelagicus* is caught by Australian crabbers, information is yet too meager to encourage speculation regarding its future potentialities. A similar condition exists in The Philippines, the inshore waters of India, Egypt, Israel and West and South Africa. It may well be that exploratory studies of the abundance of other genera and those already known could lead to additional sources of low-cost high-quality food. With rapidily expanding populations such increases in the food supply will be welcome.

Industry may find it profitable to investigate the possibilities of expanding operations to encompass markets more distant than present storage-transportation facilities allow. In the United States for example, pasteurization[2] of crabmeat in sealed double-seamed cans has increased the cold-storage life of meat of the atlantic blue crab. This technique is already beginning to increase the market areas for this product.

Other technological investigations are worthy of study; utilization of scrap waste for by-product development and automatic picking methods to increase yield and reduce production costs, to mention but two. Few papers actually deal with handling, cooking and storage of the meat. Only one paper dealing with the blue crab, *Callinectes sapidus* (Rathbun), treats of removal of meat from the shell, yet this is a major consideration in any appraisal of yield. These have been neglected areas of investigation. The outstanding lack however is the subject of nutrition. A definitive study of the vitamin, amino acid and mineral content of any of the crabmeats is unknown to the author. With the study of diet and dietetics so important these days, such an investigation would fill a wide gap in our knowledge and supply needed information. Review of this bibliography may suggest additional areas for study.

[1]Present address: Vita Food Products, Inc., Chestertown, Maryland.

[2]170°F for 1 minute internal temperature at geometric center of the can, is minimum for storage at below 43°F, to achieve a year of preservation.

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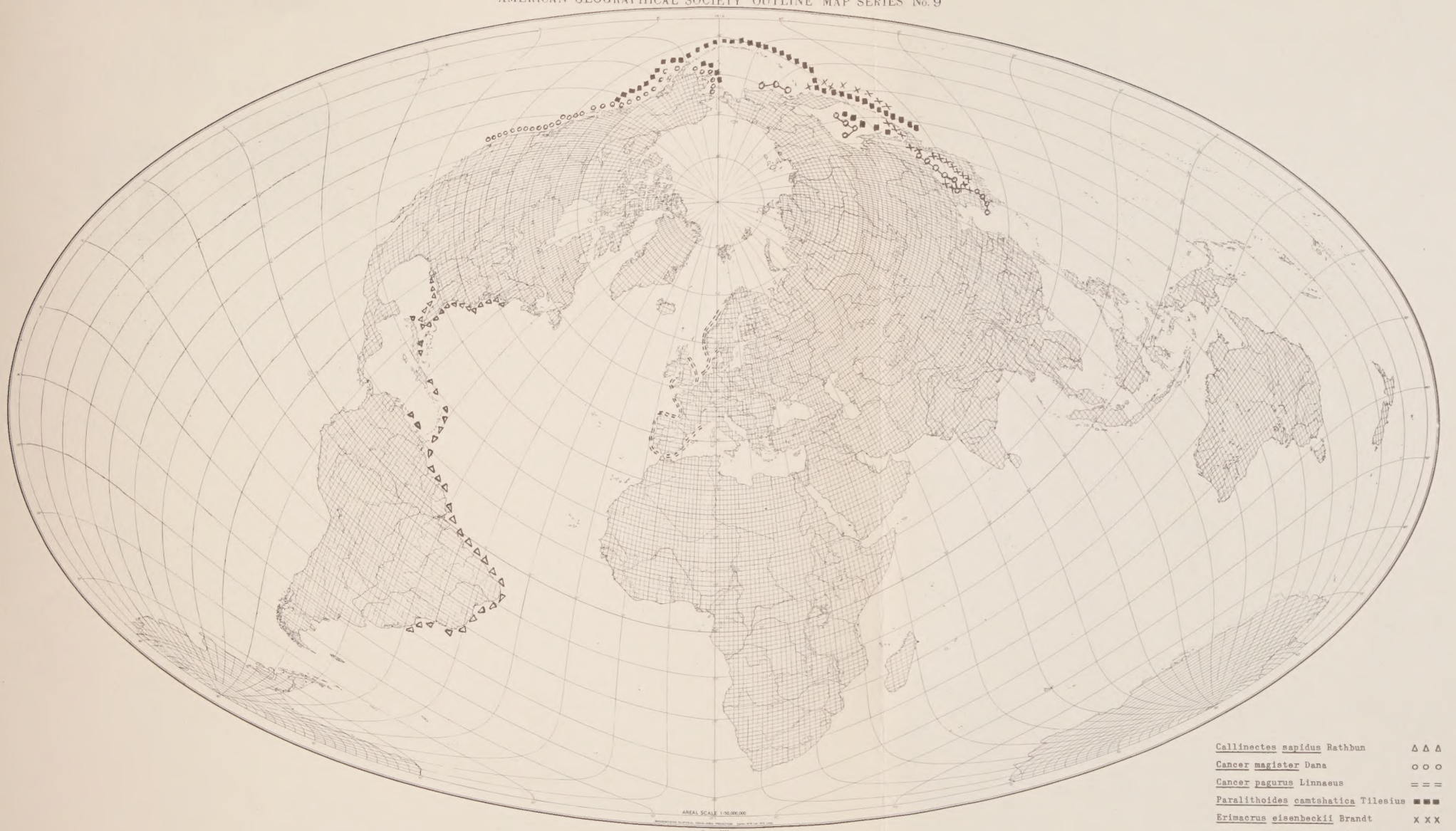

Callinectes sapidus Rathbun

Cancer magister Dana

Cancer pagurus Linnaeus

Paralithoides camtshatica Tilesius

Erimacrus eisenbeckii Brandt

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